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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,155	09/29/2003	Prakash Kasiraj	HSJ920030173US1	1901

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02/08/2005

EXAMINER

OLSON, JASON C

ART UNIT	PAPER NUMBER
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2651

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/674,155	Applicant(s) KASIRAJ ET AL	
	Examiner Jason C Olson	Art Unit 2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10, 11 and 13-22 is/are rejected.
- 7) ☒ Claim(s) 9, 12 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/29/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 18 and 19 are objected to because of the following informalities: lack antecedent basis. Claims 18 and 19 are dependent from claim 15, but lack proper antecedent basis. The examiner suggests that claims 18 and 19 should be made dependent from claim 16 instead, and will examine the claims as such. Appropriate correction is required.

Drawings

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the current drawing are not in compliance. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 8, 10, 11, 13, 15-18, and 20-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Sacks et al. (US 2003/0197968), hereinafter, Sacks.

Regarding claim 1, Sacks teaches at least one rotatable disk (see paragraph 3, ln 2); at least one write element configured for writing data to the disk in tracks (paragraph 3, ln. 3-7); and at least one HDD controller controlling the write element (paragraph 20, ln.5-7; it is interpreted by the examiner that a controller is employed to control the writing of the servo data), the controller always writing adjacent tracks in sequence (paragraph 27, ln. 1-3) toward an inner diameter (ID) in a first radial region of the disk, the controller always writing adjacent tracks in sequence (paragraph 27, ln. 3-5) toward an outer diameter (OD) in a second radial region of the disk (paragraph 25, ln. 1-11; it is interpreted by the examiner that the servo data is written in tracks).

Regarding claim 2, Sacks teaches at least one data band is established by at least two contiguous tracks (see figure 9, items 910, 920, and 930; it can be seen that each data band (930 to 920 and 920 to 910) contains more at least two contiguous tracks).

Regarding claim 3, Sacks teaches tracks in at least one of: the first radial region and the second radial region, define a track pitch, and the write element defines a width equal to or larger

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than the track pitch (see paragraph 20, ln. 3-9 and figure 2, items W; it can be seen from the figure that with of the write element (W) is greater to on equal to the track pitch).

Regarding claim 4, Sacks teaches the write element is configured for perpendicular recording (see paragraph 20, ln. 12-17).

Regarding claim 5, Sacks teaches the tracks are shingled (see paragraph 23, ln. 9-20).

Regarding claim 6, Sacks teaches the first region is radially outward from the second region (see figure 9, the first region is from 910 to 920), and the HDD employs perpendicular recording (see paragraph 20, ln. 12-17).

Regarding claim 8, Sacks teaches a random update zone interposed between the first and second regions (see paragraph 26, ln. 6-18; it is interpreted by the examiner that reserved zone is a random update zone).

Regarding claims 10, 11, 13, and 15: claims 10, 11, 13, and 15 have limitations similar to those treated in the above rejection(s), and are met by the references as discussed above.

Regarding claims 16-18 and 20-22: claims 16-18 and 20-22 have limitations similar to those treated in the above rejection(s), and are met by the references as discussed above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 7, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sacks and Miles (US 6,714,369).

Regarding claims 7, 14, and 19, Sacks teaches all the limitations of claims 1, 10, and 16 above. Sacks further teaches the HDD employs longitudinal recording (see paragraph 20, ln. 1-4), but fails to disclose the first region is radially inward from the second region. However, Miles is relied upon to teach the first region is radially inward from the second region (see col. 7, ln. 1-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon sequentially writing data tracks of Sacks by applying the teaching of writing tracks sequentially from a middle diameter toward an inner diameter as taught by Miles for the purpose as taught in column 6, line 14-19 by Miles.

Allowable Subject Matter


Claims 9, 12, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art fails teach the combination of the previous claims and a track pitch in a random update zone that is equal to or larger than a track pitch in at least one of: a first region, and a second region, to reduce adjacent track interference in the random update zone.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason C Olson whose telephone number is (571)272-7560. The examiner can normally be reached on Monday thru Thursday 7:30-5:30; alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Hudspeth can be reached on (571)272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCO 
February 3, 2005


DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2651